

**Notice of Allowability**

Application No.

10/666,508

Applicant(s)

HAIDER ET AL.

Examiner

Terry L. Englund

Art Unit

2816

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Jan 10, 2005.
2. ☒ The allowed claim(s) is/are 8-27 (now renumbered as 1-20, respectively for printing purposes).
3. ☒ The drawings filed on Sep 19, 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

TIMOTHY R. CALLAHAN

SUPERVISORY PATENT EXAMINER

TECHNOLOGY CENTER 2800

**EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to the applicants, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

The application has been amended as follows:

Claim 8, line 11: changed "voltages" to --voltage--;

line 15: added --device-- after "second p-channel";

Claim 10, line 3: deleted one occurrence of "a";

Claim 17, line 8: changed "voltages" to --voltage--;

line 12: added --device-- after "second p-channel"; and

Claim 19, line 2: added --includes-- after "further".

The changes claims 8 (line 11) and 17 (line 8) correct minor oversights by the examiner (e.g. they were not described in the previous Office Action), wherein "voltages" has now been made singular to correspond with its "either" related phrase. Claims 8 (line 15) and 17 (line 12) were also amended to address an inadvertent oversight within the applicants' amended change by clearly relating the "second p-channel" phrase to a device that one of ordinary skill in the art would understand with respect to the other limitations recited. Claim 10's "includes a a third" had one "a" dropped to improve word flow. Another inadvertent oversight was corrected in amended claim 19, wherein it is believed the term "includes" was removed from the claim by accident (e.g. see "further includes a third" in related claim 20, line 3). Adding the "includes"

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term back into claim 19 improves its word flow, and minimizes possible confusing with respect to the “further a third” phrasing.

### **RESPONSE TO AMENDMENT**

The amendment submitted on Jan 10, 2005 (inadvertently dated as “01/10/2004” under the Certificate of Transmission/Mailing section) was reviewed and considered with the following results:

The cancellation of claims 1-7 rendered their respective objections and/or rejections moot.

The amended claims overcame the objections to claims 10-14, and 20-24 as described on pages 2-3 of the previous Office Action. Therefore, those objections have been withdrawn.

Amended claims 23 and 24 overcame their antecedent related rejections, and those rejections have also been withdrawn.

Amended independent claims 8 and 17 overcame the rejections of claims 8-10, 15-20, and 23-27 under 35 U.S.C. 103(a) with respect to Chao et al./Kaneko et al. Neither of these references clearly shows or discloses the first/second channel devices coupled in parallel within each of the originator circuits as now recited within each of independent claims 8 and 17. Therefore, all of the prior art rejections described the previous Office Action have now been withdrawn.

Although several minor concerns were noted when the claims were reviewed and considered, these were addressed/corrected by the Examiner’s Amendment described above.

### **REASONS FOR ALLOWANCE**

The following is an examiner’s statement of reasons for allowance:

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None of the prior art references reviewed and considered clearly shows each of the first/second originator circuits including their own respective first/second channel devices as now recited within independent claims 8 (upon which claims 9-16 depend) and 17 (upon which claims 18-27 depend). Since there is no strong motivation to modify or combine any prior art reference(s) to ensure those specific limitations are met, the claims are deemed patentably distinct over the prior art of record.

Claims 8-27 are allowed, and have been renumbered as claims 1-20, respectively for printing purposes. The renumbering takes into account the cancellation of claims 1-7.

#### **PRIOR ART**

The two prior art references on the accompanying PTO-892 are cited for interest and documentation purposes only. Both of these references show originator circuits, with parallel devices, for generating reference voltages. For example, Anderson's Figs. 1A-1B each shows two bipolar transistors 3,4 coupled in parallel, and Ukita's Figs. 1 and 8 each shows two MOSFET transistors Q2,Q3 coupled in parallel. Although each of these references shows transistors (known channel type devices) coupled in parallel, neither reference shows the parallel transistors within an originator circuit as being of the same channel type (e.g. n-channel or p-channel) as clearly recited within the claims. For example, Anderson pairs a PNP transistor with an NPN transistor, and Ukita pairs a PMOS transistor with an NMOS transistor. Therefore, there is no strong motivation to ensure the first originator circuit includes first/second p-channel devices coupled in parallel, wherein the second originator circuit includes first/second n-channel devices coupled in parallel, as now recited within each of the independent claims.

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Any comments considered necessary by the applicants must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication, or previous communications, from the examiner should be directed to Terry L. Englund whose telephone number is (571) 272-1743.

The examiner can normally be reached Monday-Friday from 7 AM to 3 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Callahan, can be reached on (571) 272-1740.

The new central official fax number is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-1562.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Terry L. Englund

23 March 2005